

Chapter 1. General Principles of TOD

What is TOD?

“Transit-Oriented Development (TOD) is moderate to higher-density development, located within an easy walk of a major transit stop, generally with a mix of residential, employment and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use.”

Terry Parker and GB Arrington, “Statewide Transit-Oriented Development Study: Factors for Success in California”; for the California Department of Transportation; Final Report, September 2002

In applying TOD principles, some definitions are helpful:

{¹ **“Transit-Oriented** really means Pedestrian-Oriented (albeit centered around a transit station). Designing a station area for people rather than vehicles will ultimately support healthy transit ridership.

Moderate to High Density can vary with each community.

Development includes not only buildings but also the sidewalks, streets, bus zones and parks in the station area.”^{1}}

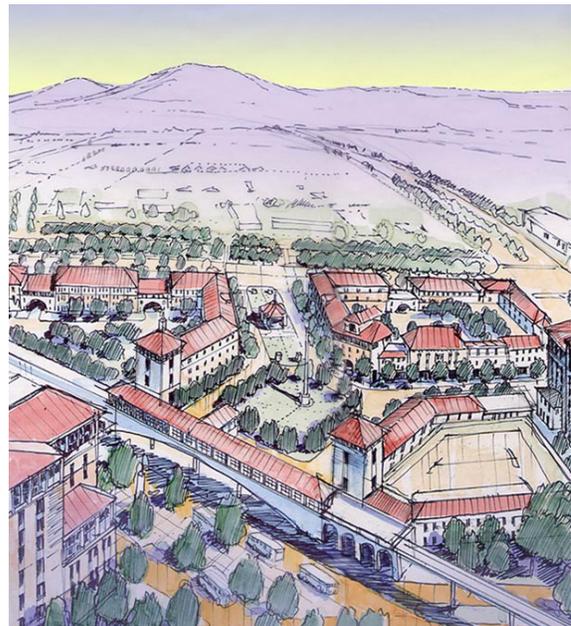
An **Easy Walk** is about one-quarter to one-half mile. {² “In safe and pleasant surroundings, people may consider a longer walk to be ‘easy.’

New Development or Reconstruction can include the preservation and enhancement of existing natural and manmade elements that give each community its unique sense of place.

TOD can refer to One or More Buildings, but usually describes the entire neighborhood surrounding a station.”^{2}}

Site the Station to Maximize Development Opportunities

For successful TOD implementation the transit facility should be located and designed in a manner that welcomes and facilitates development. The Federal Transit Administration (FTA) provides support of TOD development indirectly by funding eligible “New Start” rail projects using funding criteria favorable for TOD development.



Lemertz Coyle and Associates, Seth Harry

Pleasant Hill TOD, Phase II

Note: Because of the volume and length of many of the quotations in this document, a bracket symbol with corresponding footnote reference number is placed at the beginning and ending of each quotation.

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As noted in the Statewide Transit-Oriented Development Study Final Report, higher funding priority is assigned to projects that 1) contain sprawl on a regional scale, 2) focus on development along transit corridors, and 3) incorporate transit-friendly zoning with a mix of uses, pedestrian scale, increased density, and parking limits in station areas. Specific funding criteria can be found at www.fta.dot.gov/25_ENG_html.htm.

{³ “Transit facilities should be planned, sited, and designed to be a major focus of the station area. To maximize pedestrian access, stations should be sited in areas that have or are planned to accommodate a high density of mixed land uses, including major employment locations, significant cultural or educational facilities, and other regional destinations. While park-and-ride lots are extremely important components to building the ridership of the overall transit system, they typically detract from the uses, densities and activities that create a pedestrian-oriented station community.”

Stations that will have a significant amount of parking (200 or more surface parking spaces) should be sited in locations where major development is not planned for the immediate future.” }³

Make the Station a Part of the Community

{⁴ “At its core, a transit station community is a compact, mixed-use activity area centered around a transit station that by design encourages residents, workers, and shoppers to drive their cars less and ride mass transit more. The centerpiece of the transit community is the transit station, connecting the residents and workers to the rest of the region, and the civic and public spaces that surround it. The design, configuration, mix of buildings and activities emphasize pedestrian-oriented environments and encourage use of public transportation. The land uses within a transit station community are linked with convenient pedestrian walkways, and parking is managed to discourage dependence on the automobile.” }⁴

TOD is a strategy that has broad potential in cities, suburban areas, and small communities us-

ing bus and/or rail transit systems. TOD focuses compact growth around transit stops, thereby capitalizing on transit investments by bringing potential riders closer to transit facilities and increasing ridership. TOD can also produce a variety of other local and regional benefits by encouraging walkable compact and infill development.

TOD draws on many of the same planning and development principles embraced by New Urbanism, Place Making, Smart Growth, and the Livable Communities movements:

- Moderate to higher density development in relation to the existing pattern of development;
- Horizontally and/or vertically mixed land uses;
- Compact pedestrian-oriented design and streetscapes;
- Building design and orientation to the street to allow easy pedestrian and transit access;
- A fine-grained connected street pattern; and
- Parks and open spaces.



Oakland City Center is built around a BART station.

In addition to these principles, for development to be transit-oriented, it generally needs to provide access to transit in terms of parking, density, and/or building orientation in comparison to conventional development. (It is not enough that it is just adjacent to transit.)

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Local governments can play a significant role in facilitating TOD through plans, policies, zoning provisions, and incentives for supportive densities, designs, and mix of land uses. A successful TOD will reinforce both the community and the transit system. A checklist is provided in the Appendix that can guide communities in reviewing proposed projects and assessing the transit-friendliness of current land use codes and ordinances.

Successful TOD implementation typically involves a number of elements such as: optimal transit system design; community partnerships; local real estate markets; TOD planning; coordination among local, regional, and state organizations; and providing the right mix of planning and financial incentives and resources.



Uptown District in San Diego

Why TOD?

{⁵ “Over the next 20 years California is expected to add 11-16 million new residents and over four million new households. This unprecedented growth is more than the state experienced during the 1950s, 1960s, and 1970s combined.” }⁵ California’s success at managing this growth will determine its future prosperity, the quality of its environment, and the overall quality of life for its residents.

TOD is a strategy that can help manage this growth and improve California’s quality of life. TOD provides communities with an alternative to the consequences of low-density suburban sprawl and automobile-dependent land use patterns. In addition, TOD can help answer California’s dramatic need for more affordable housing.

TOD seeks to align transit investments with a community’s vision for how it wants to grow; creating “livable” mixed use, denser, walkable “transit villages”. By implementing TOD, California can make progress towards improving its quality of life and better coordinate investments in transportation and land use projects.

Benefits from TOD

{⁶ “TOD Can Provide Mobility Choices

By creating ‘activity nodes’ linked by transit, TOD provides important mobility options, which are needed in the state’s most congested metropolitan areas. This also allows young people, the elderly, people who prefer not to drive, and those who don’t own cars the ability to get around.

TOD Can Increase Public Safety

By creating active places that are busy through the day and evening and providing ‘eyes on the street’, TOD helps increase safety for pedestrians, transit-users, and others.

TOD Can Increase Transit Ridership

TOD improves the efficiency and effectiveness of transit service investments by increasing the use of transit in the area surrounding major transit stations by 20 to 40 percent.

TOD Can Reduce Rates of Vehicle Miles Traveled (VMT)

Vehicle travel in California increases faster than the state’s population. TOD can lower annual household rates of driving by 20 to 40 percent for

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those living, working, and/or shopping near transit stations.

TOD Can Increase Disposable Household Income

Housing and transportation are typically the first and second largest household expenses, respectively. TOD can free-up disposable income by reducing driving costs, saving \$3-4,000 per year for each household.

TOD Can Reduce Air Pollution and Energy Consumption Rates

By providing safe and easy pedestrian access to transit, TOD can lower rates of air pollution and energy consumption. Also, TODs can reduce rates of greenhouse gas emissions by 2.5 to 3.7 tons per year for each household.” ^{6}}

{7 “TOD Can Help Conserve Resource Lands and Open Space

Because TOD consumes less land than low-density, auto-oriented growth, it reduces the need to convert farmland and open spaces to development.

TOD Can Play a Role in Economic Development

TOD is increasingly used as a tool to revive aging downtowns, revitalize declining urban neighborhoods, and enhance tax revenues for local jurisdictions.

TOD Can Contribute to More Affordable Housing

TOD can add to the supply of affordable housing by providing lower-cost housing and by reducing household transportation expenditures. Housing costs for land and structures can be significantly reduced through more compact growth patterns.



Hollywood-Highland is an entertainment destination in Los Angeles that maximizes the use of the adjacent Red Line station.

TOD Can Decrease Local Infrastructure Costs

Depending on local circumstances, TOD can help reduce infrastructure costs (such as for water, sewage and roads) to local governments and property owners by up to 25% through more compact and infill development.” ^{7}}



American Plaza in San Diego



Ohlone-Chynoweth has 194 affordable housing units.

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Gateway Plaza in Los Angeles is the result of city efforts to spur economic growth near transit corridors.

Barriers to Implementing TOD

{⁸ “The community and transportation benefits of TOD can be significant, but there are still many major barriers that limit the broader implementation of TOD in California, including:

Transit System Design

The design of transit systems can be a major barrier to successful TOD. Stations often have poor pedestrian access and ignore the surrounding local community. Broad expanses of surface-level commuter parking often separate the stations from the surrounding community, and stations and transit corridors are often located in areas with challenging development conditions, reducing transit’s ability to link activity centers.

Local Community Concerns

To local neighborhoods, proposals for TOD projects often are associated with concerns about changing the character of a community. Even with quality design and appropriate density, and despite local government support for a TOD, community concerns about density and traffic are often huge hurdles to implementation.

Local Zoning Not Transit-Friendly

In most major transit station areas in the state, local zoning has not been changed to reflect the presence of transit. Local development codes around stations often tend to favor low density, auto-oriented uses. Creating and implementing transit-friendly zoning becomes an additional challenge.

Higher Developer Risk and Cost

Mixed-use, higher density projects with reduced amounts of parking (such as in TOD) can significantly increase risks for developers and financiers. TOD can be more costly, and can be subject to more regulations and more complex local approval processes, as compared to conventional ‘auto-oriented’ development.

Financing Difficult to Obtain

Obtaining private financing for TODs is often also a barrier. Lenders typically have concerns about financing mixed-use projects or those with lower parking ratios (which are typical in TOD). Public financing available for implementing TOD is very limited and often difficult to obtain in California.” ^{8}}

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References

- 1 San Francisco Bay Area Rapid Transit District, *BART Transit-Oriented Development Guidelines*, June 2003.
- 2 Ibid.
- 3 Puget Sound Regional Council, *Creating Transit Station Communities in the Central Puget Sound Region – A Transit-Oriented Development Workbook*, June 1999.
- 4 Ibid.
- 5 Elizabeth Deakin, et.al. *Twelve Trends for Consideration in California's Transportation Plan*, Overview, University of California Transportation Center, May 2001.
- 6 Terry Parker and GB Arrington, *Statewide Transit-Oriented Development Study: Factors for Success in California*; for the California Department of Transportation; Final Report, September 2002.
- 7 Elizabeth Deakin, et.al.
- 8 Terry Parker and GB Arrington.